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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/582,105

06/08/2006

Matsuzoe Hisanobu

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04/13/2009

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EXAMINER

DO, AN H

ART UNIT

PAPER NUMBER

2853

MAIL DATE

DELIVERY MODE

04/13/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------------|--|
| Office Action Summary | Application No. 10/582,105 | Applicant(s) HISANOBU, MATSUZOE | |
| | Examiner An H. Do | Art Unit 2853 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-10 is/are rejected.
- 7) ☒ Claim(s) 3 and 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/8/2006 & 10/5/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Species A readable on claims 1-10 in the reply filed on 28 January 2009 is acknowledged. The traversal is on the ground(s) that claims 1-10 are sub-generic to all of the variations of species A-D. This is found persuasive and hence, the Election/Restriction Requirement mailed on 23 December 2008 is hereby withdrawn.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The information disclosure statements (IDS) submitted on 08 June 2006 and 05 October 2006 were filed and are being considered by the examiner.

Specification

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2 and 5-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Hisanobu (JP 2003-326756A).

Hisanobu discloses the following claimed features:

Regarding claims 1, 6 and 7, a print head comprising a discharge-by-heating type discharge control unit (Abstract), said discharge control unit including: a heating means (Claim 2) including a heat generation portion provided with a heat generation body and a driver IC that controls heat generation of said heat generation body; and a discharge portion including a discharge electrode disposed in accordance with said heat generation body (Abstract); wherein said heat generation portion and said discharge portion are insulated from each other, and wherein a surface on which said discharge electrode is disposed and a surface on which said driver IC is disposed are not flush with each other (Abstract, Figures 1 and 2).

Regarding claim 2, wherein a way according to which said discharge electrode is arranged is an end-surface-type in which said discharge electrode is disposed at an end surface part of a substrate on which said driver IC is disposed (Figure 1).

Regarding claim 5, further comprising a high-pressure board that is electrically connected to said discharge portion and that supplies a discharge control voltage to said discharge electrode (Abstract, Figures 1 and 2).

Regarding claim 8, wherein recording is performed onto a recording medium in which a visible image appears in an inside of said recording medium in reaction to an

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electric charge generated by an electric discharge of said print head (Claim 3, Figures 4-6).

Regarding claim 9, further including an electrostatic latent image carrier that faces said print head (Claim 3, Figures 4-6).

Regarding claim 10, further including: said electrostatic latent image carrier; a visualizing means for forming a visible image on a surface of said electrostatic latent image carrier based on an electrostatic latent image formed on a surface of said electrostatic latent image carrier; and a transferring means for transferring said visible image to a printing medium (Claims 3 and 4, Figures 4-6).

Allowable Subject Matter

7. Claims 3 and 4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for the allowance of claim 3 is the inclusion of the limitation of a print head that includes a way according to which said discharge electrode is arranged is an edge type in which said discharge electrode is disposed on an edge at an end surface part of a substrate on which said driver IC is disposed so as to make an obtuse angle with a surface of said substrate. It is this limitation found in the claims, as it is claimed in the combination of, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

The primary reason for the allowance of claim 4 is the inclusion of the limitation of a print head that includes a way according to which said discharge electrode is arranged is a ridge type in which said discharge electrode is disposed on a raised surface of a ridge formed on a surface of an edge of a substrate on which said driver IC is disposed. It is this limitation found in the claims, as it is claimed in the combination of, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Masashi et al (JP 08-072292) disclose an ion write head comprises a plurality of individual electrodes formed on a board.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to An H. Do whose telephone number is 571-272-2143. The examiner can normally be reached on Monday-Friday (Flexible).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/An H. Do/

Primary Examiner, Art Unit 2853